# DESCRIPTION OF THE FEMALES OF ANAPIS CASTILLA AND ANAPISONA BORDEAUX (ARANEAE, ANAPIDAE)

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**ABSTRACT.** The females of *Anapis castilla* Platnick & Shadab from the state of Amazonas and *Anapisona bordeaux* Platnick & Shadab from the state of Rio Grande do Sul both in Brazil, are described.

**Keywords:** Neotropical region, taxonomy, morphology

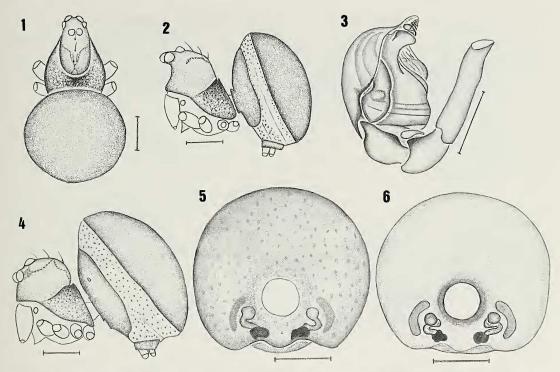
The Neotropical genera Anapis Simon and Anapisona Gertsch were revised by Platnick and Shadab (1978, 1979). The genus Anapis currently includes 22 species, of which 11 are known from both males and females, nine only from females and two only from males. Two species have been recorded from Brazil: A. hetschki (Keyserling 1886) from Santa Catarina and A. discoidalis (Balogh & Loksa 1968) from Pará (Platnick 2002). The genus Anapisona includes 13 species, seven known from couples, two only from females and four only from males. Two species have been recorded from Brazil: A. schuhi Platnick & Shadab 1979, from Amazonas, and A. platnicki Brignoli 1981, from Santa Catarina (Platnick 2002).

We studied several specimens of Anapidae collected in the Brazilian region and verified that they belong to species previously known only from the male holotypes: *Anapis castilla* Platnick & Shadab 1978 and *Anapisona bordeaux* Platnick & Shadab 1979. Apparently both species are relatively rare ground dwellers inhabiting the litter layer. They are here recorded for the first time from Brazil.

A very unusual distribution was presented by *A. bordeaux*. The new locality record for this species (Atlantic Forest remnant in the northeast highlands of Rio Grande do Sul, Brazil) is located approximately 5000 km from the type locality (Bordeaux Mountains in the U.S. Virgin Islands). Two hypotheses must be considered: introduction or a wide

range distribution. However, the introduction hypothesis is improbable since the locality where these specimens were collected, in southern Brazil, is not very influenced by human activities. The Centro de Estudos e Conservação da Natureza Pró-Mata area comprise mountain out slopes from 500 to approximately 950 m elevation. It is characterized by Mixed Ombrophilous Forest, with Dense Ombrophilous forests and Savannahs, and by humid to very humid climate, with temperatures below 15 °C during the winter season (Bertoletti & Teixeira 1995). Unfortunately, detailed environmental data about the type locality of the holotype is not available for comparison. This is probably a case of wide range distribution considering that the Neotropical spider fauna is poorly known. At least two similar cases are cited in the literature. The holotype for the anyphaenid species Otoniella quadrivittata (Simon) was described from Venezuela and later recorded in northern Argentina (Brescovit 1996:61-62). The zodariid Leprolochus birabeni Mello-Leitão is distributed from northeastern Brazil, with a great number of records in Paraguay and Argentina (Jocqué 1988, fig. 1).

All measurements are in millimeters. The studied specimens are deposited in the collections of the Instituto Butantan (IBSP), Instituto Nacional de Pesquisas da Amazônia (INPA, C. Magalhães); Museu de Ciências e Tecnologia da PUC/RS (MCTP, A.A. Lise); Museu de Ciências Naturais da FZB/RS



Figures 1–6.—*Anapis castilla* Platnick & Shadab, male, body: 1. dorsal view; 2. lateral view; palp: 3. retrolateral view; female, body: 4. lateral view; epigynum: 5. ventral view; 6. dorsal view. Scale = 0.25 mm.

(MCN, E.H. Buckup) and Staatliches Museum für Naturkunde Karlsruhe (SMNK, H. Höfer).

### Anapis castilla Platnick & Shadab Figs. 1–6

Anapis castilla Platnick & Shadab 1978:22, fig. 20 (male holotype from Berlese sample of forest litter collected at the edge of the Amazon River at Ramón Castilla (5 km NW. of Leticia, Colombia), Loreto, Peru, 23 February 1972, S. & J. Peck, deposited in Field Museum of Natural History, Chicago, not examined).

Material examined.—BRAZIL: Amazonas: 27 males, 31 females, Manaus, Rio Solimões, Canal Janauari (03°20'S, 60°17'W, "água mista"), 1988, J. Adis et al. (MCN 23687; IBSP 34436–34440; SMNK; INPA); 7 3, 2 9, with same locality data, 1 March 1988 (MCN 23686).

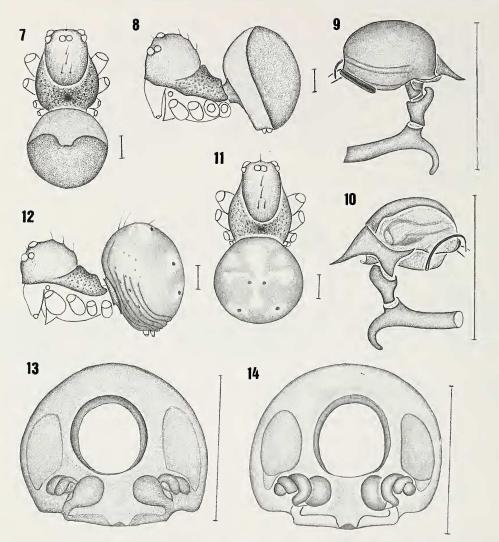
**Diagnosis.**—Females of *A. castilla* are distinguished from other *Anapis* females by strong sclerotizations around the opening of the copulatory ducts (Figs. 5–6).

**Description.**—*Male:* Described by Platnick & Shadab (1978). Body and palp are here presented in Figs. 1–3.

Female: Carapace, sternum and abdominal scutum brownish orange. Legs orange. Tibia I with one very short distal prolateral cusp. Anterior portion of carapace not projecting, as in male (Fig 4). Anterior lateral eyes separated by about one third of their diameter. Scutum of abdomen smooth, covering the dorsum entirely, with very small and abundant lateral punctuations (Fig 4). Surface of ventral scutum covered with irregularly dispersed and very slightly sclerotized depressions. Measurements. Total length 1.27. Carapace 0.62 long, 0.50 wide, 0.40 high. Abdomen 1.18 long, 1.04 wide. Legs: I, femur 0.48, patella 0.20, tibia 0.30, metatarsus 0.14, tarsus 0.38, total 1.50; II, 0.42, 0.18, 0.28, 0.12, 0.34, 1.34; III, 0.30, 0.14, 0.22, 0.12, 0.30, 1.08; IV, 0.40, 0.14, 0.28, 0.14, 0.32, 1.28. Epigynal plate with very dark portions surrounding the genital openings and sinuous posterior margin. Spermathecae small, ducts "S" shaped. (Figs. 5-6).

## Anapisona bordeaux Platnick & Shadab Figs. 7–14

Anapisona bordeaux Platnick & Shadab 1979: 3, figs. 22, 23 (male holotype from Bordeaux Moun-



Figures 7–15.—*Anapisona bordeaux* Platnick & Shadab, male, body: 7. dorsal view; 8. lateral view; palp: 9. prolateral view; 10. retrolateral view; female, body: 11. dorsal view; 12. lateral view; epigynum: 13. dorsal view; 14. ventral view. Scale = 0.25 mm.

tain, St. John, United States Virgin Islands, 17 December 1965, deposited in America Museum of Natural History, New York, not examined).

Material examined.—BRAZIL: *Rio Grande do Sul*:  $1 \, \stackrel{?}{\circ}$ ,  $1 \, \stackrel{?}{\circ}$ , São Francisco de Paula, Centro de Estudos e Conservação da Natureza Pró-Mata (29°27'/29°35'S, 50°08'/50°15'W, 500 m), 1999, J. Ketterl (MCTP 13006);  $1 \, \stackrel{?}{\circ}$ , with same data (IBSP 34625).

**Diagnosis.**—The female of *A. bordeaux* is distinguished from other *Anapisona* females by the coiled copulatory ducts, transversally disposed to the lateral side of spermathecae (Figs. 13–14).

**Description.**—*Male:* Described by Platnick & Shadab (1979). The male palp of the Brazilian specimens is illustrated in Figs. 9–10. Carapace with deep fovea (Fig. 8). Abdomen with dorsal scutum invaginated distally (Fig. 7).

Female: Carapace and sternum maroon, strongly sclerotized. Abdomen dark brown, with a few lighter areas and four pairs of sclerotized small spots at dorsum (Fig. 11); dorsal scutum absent; lateral and posterior portion of the abdomen remarkably wrinkled (Fig. 12). Carapace with deep round fovea (Fig. 11). Tibia I with 1 prolateral and 1 re-

trolateral distal cusp and 1 prolateral cusp at middle. Measurements. Total length 1.92. Carapace 1.15 long, 0.75 wide, 0.60 high. Abdomen 1.30 long, 1.05 wide. Legs: I, femur 1.07, patella 0.40, tibia 0.85, metatarsus 0.42, tarsus 0.62, total 3.36; II, 0.77, 0.35, 0.57, 0.35, 0.55, 2.59; III, 0.52, 0.27, 0.37, 0.27, 0.42, 1.85; IV, 0.70, 0.25, 0.47, 0.27, 0.47, 2.14. Epigynum with large spermathecae separated by their diameter (Figs. 13, 14).

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#### LITERATURE CITED

Bertoletti, J.J. & M.B. Teixeira. 1995. Centro de Pesquisas e Conservação da Natureza Pró-Mata. Divulgações do Museu de Ciências e Tecnologia, Porto Alegre 2:1–47.

Brescovit, A.D. 1996. Revisão de Anyphaeninae Bertkau a nível de gêneros na região neotropical (Araneae, Anyphaenidae). Revista Brasileira de Zoologia 13(Supl. 1):1–187.

Jocqué, R. 1988. An updating of the genus *Leprolochus* (Araneae: Zodariidae). Studies in Neotropical Fauna and Environment 23:77–87.

Platnick, N.I. 2002. The world spider catalog, version 2.5. American Museum of Natural History, online at http://research.amnh.org/entomology/spiders/catalog81–87/index.html

Platnick, N.I. & M.U. Shadab. 1978. A review of the spider genus *Anapis* (Araneae, Anapidae). American Museum Novitates 2663:1–23.

Platnick, N.I. & M.U. Shadab. 1979. A review of the spider genera *Anapisona* and *Pseudanapis* (Araneae, Anapidae). American Museum Novitates 2672:1–20.

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